***Editor's note:*** For our non-scientist readers, "BIO SNPs" is a play on the acronym SNPs (pronounced 'snips'), single nucleotide polymorphisms, which are DNA sequence variations that occur when one of the structural components of DNA in the genome sequence is altered.

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## Inside this Issue



AMDeC Academic Medicine Development Company

**Maurice R. Greenberg,** Chairman
**Maria K. Mitchell, Ph.D.**, President

# BIO SNPs

## AMDEC WORKS WITH NEW YORK'S BIOMEDICAL RESEARCH COMMUNITY TO CREATE NEW BIODEFENSE CONSORTIUM

The AMDeC Center on Bioterrorism has played an integral part in creating a consortium of biomedical research institutions from New York State and key partners from New Jersey and Connecticut to respond to a Request for Application (RFA) from the National Institute of Allergy and Infectious Diseases (NIAID). Last August, the NIAID, which is the principal institute among the National Institutes of Health supporting research on emerging infectious diseases, including those that represent threats as agents of bioterrorism, issued a RFA for funds to develop Regional Centers of Excellence for Biodefense and Emerging Infectious Diseases Research. These Regional Centers of Excellence (RCE) will form a highly developed research and development infrastructure with strong translational research capacity to make the next generation of therapeutics, vaccines, and diagnostics against biological agents most likely to be used in a bioterrorist attack.

***The Regional Center of Excellence will aim to expand the scope and range of research, investigators, and institutions involved in biodefense research.***

The NIAID's Blue Ribbon Panel on Bioterrorism and Its Implications for Biomedical Research, convened after the fall 2001 anthrax attacks, issued a number of recommendations to further the nation's biodefense agenda. In line with these recommendations, the consortium will prioritize the focus of its research on bacterial pathogenesis, viral pathogenesis and therapeutics, B-cell related interventions, vaccine platforms, translational/clinical components, and diagnostics. Moreover, among the pathogens studied, emphasis will be on those pathogens that are recognized by the CDC as having the highest bioterrorism potential, such as anthrax, smallpox, plague, tularemia, botulism, and viral hemorrhagic fevers.

In addition to projects in these basic research areas, a number of developmental research projects will be included, thereby taking full advantage of developing technologies and novel approaches. These pilot projects may involve researchers within the consortium, or extend to other appropriate regional scientists who are interested. The RCE will aim to expand the scope and range of research, investigators, and institutions involved in biodefense research. Furthermore, to increase the availability of researchers for biodefense, the RCE will include career development projects. These training programs, aimed at researchers, technicians, and clinicians, will further increase the pool of contributors to biodefense.

Shared facilities will be available to the consortium members to support the basic and developmental research projects. The investigators will have access to an informatics core, an

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## AMDEC WORKS WITH NEW YORK'S BIOMEDICAL RESEARCH COMMUNITY TO CERATE NEW BIODEFENSE CONSORTIUM

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animal core, an expression core, a bioinformatics/structural biology core, a monoclonal antibody core, and a proteomics core. The creation of an infrastructure for collaborative biodefense research programs will significantly promote biomedical research partnerships — at both the investigator and the institutional level. In addition to these investigative and educational goals, the RCE will also have a role in emergency response. The RCE will develop a plan to create first responder support in the event of a national biodefense emergency. This means that the consortium members have to be ready and available to provide facilities and scientific support in case of an emergency.

The elements that characterize this RCE for Biodefense and Emerging Infectious Diseases Research — inter-institutional collaboration, expansion of research infrastructure, and strengthening of intellectual capital — are the same elements that constitute AMDeC's mission. The synergies that will result from this important endeavor will greatly advance the nation's biodefense agenda. Progress in biodefense research will undoubtedly trigger advances in the continuing study of emerging and re-emerging infectious diseases. Additionally, understanding the mechanisms of regulation of the immune system will have many benefits for chronic disease management as well as infectious disease. Through an unprecedented sense of urgency, New York's commitment to the biodefense research agenda creates a model to marshal its scientific resources in a manner that should have many positive consequences for improved public health across the nation.

## NCI LEADERSHIP COMMENDS THE PIONEERING EFFORTS OF THE NEW YORK CANCER PROJECT

The need for large-scale tissue repositories for research became a focal point of discussion during a recent presentation about the New York Cancer Project (NYCP) to Dr. Andrew von Eschenbach, Director of the National Cancer Institute (NCI). With the tremendous number of individuals needed for population-based genetics research, large-scale repositories such as the one created from the NYCP are increasingly important to academic and industry researchers. As NCI considers the creation of a network of data collection sites using an integrated and standardized platform, the NYCP database and genetic content repository could well serve as a national and international prototype for genomic research. In fact, NCI acknowledged the pioneering efforts of AMDeC and commented that the New York Cancer Project biorepository is at least 18 months ahead of many other entities who are writing proposals to accomplish what AMDeC has already done.

The New York Cancer Project biorepository will become even more valuable when linked with the capabilities of AMDeC's genomics cores. AMDeC's Microarray Resource Center (MRC) and Bioinformatics Core can be used in conjunction with the biorepository to provide researchers with fully characterized DNA samples and individual lifestyle and medical information. A major goal of the MRC is to standardize operating procedures in a field that has been resistant to standardization. By standardizing operating procedures, scientists can use data across all AMDeC-affiliated core facilities, leveraging the results from multiple sources to increase the scope and efficiency of research projects.

## AMDEC CO-SPONSORS STEM CELL CONFERENCE WITH CANADIAN CONSULATE

**AMDeC co-sponsored a conference with the Canadian Consulate entitled "Advances and Opportunities in Stem Cell Research in the U.S. and Canada: Where We Are, Where We're Going." Conference speakers described research activities taking place in Canada and the U.S. related to embryonic stem cell research and outlined the challenges and opportunities for collaboration in this burgeoning field. The above photo was taken of the conference organizers, speakers and sponsors (from left to right): Dr. Peter Preziosi, AMDeC Vice President of Communications, Dr. Robert Goldstein, Chief Scientific Officer of the Juvenile Diabetes Research Foundation, John Linville, Chair of the Bioethics Committee of the New York City Bar Association, Dr. Janet Rossant, Professor in the Department of Molecular and Medical Genetics at the University of Toronto, Dr. Gordon Keller, Professor of Gene Therapy and Molecular Medicine at Mount Sinai School of Medicine, Dr. Barbara Beckett, Senior Associate for Stem Cell Research Policy of the Canadian Institutes of Health, Garth Smith, Investment Marketing Section of the Canadian Ministry of Enterprise, Opportunity and Innovation and Rick Savone, Consul and Trade Commissioner, Canadian Government Trade Office.**

## NEW YORK CANCER PROJECT BIOREPOSITORY SPAWNS NEW SCIENTIFIC STUDIES

NEW YORK CANCER PROJECT

YOU ARE THE CURE

A New York Cancer Project (NYCP) Scientific Advisory Committee has been formed and charged with devising protocols that establish use of the NYCP database including the review of application requests for the database submitted from the scientific community. The Advisory Committee is comprised of ten nationally-renown scientists and led by Dr. Ramon Parsons of Columbia University College of Physicians and Surgeons. The database contains information and genetic material on nearly 20,000 New Yorkers above the age of 30 whose racial, ethnic, and socioeconomic diversity reflects that of New York City. This resource will lead to important new knowledge about the genetic and environmental causes of cancer and other diseases.

In just a few short months following its official opening, the NYCP database is already proving to be a very important resource. Dr. Kenneth Offit, Chief of Clinical Genetics at Memorial Sloan-Kettering Cancer Center, has published several studies that used the NYCP's DNA samples on a de-identified basis. In one highly publicized study, reported by the Associated Press, Offit and his colleagues found that Ashkenazi Jews in New York were more likely to develop colon cancer if the subject presented with a single gene mutation (BLM gene). Studies identifying specific and subtle genetic risk factors for various types of diseases are on the rise and the NYCP's database, with its breadth of genetic content, can play a major role in furthering these kinds of studies.

The Scientific Advisory Committee is also exploring appropriate uses for the NYCP database beyond areas of cancer. Following several targeted marketing efforts, proposals have come to AMDeC in disease areas such as rheumatoid arthritis, hypertension, nephrolithiasis, obesity and addiction. A Preliminary Review Committee comprised of three local members from the Scientific Advisory Committee is undertaking review of these applications. For more information, contact Tara Vazquez, Scientific Resource Manager at (212) 218-5640 or email vazquez@amdec.org.

## NEW VENDOR AFFILIATIONS OFFER DISCOUNTS TO AMDeC-AFFILIATED SCIENTISTS

AMDeC has entered into a number of strategic alliances with biomedical product vendors to provide AMDeC-affiliated investigators discounted products thereby driving down the cost of research and making New York investigators more competitive in attracting research grants. Working in collaboration with AMDeC's Microarray Resource Center (MRC) Advisory Committee, initial product offerings have focused on developing synergies with the MRC, helping to advance the strategic objectives of the Core.

One major goal of the MRC is to standardize operating procedures and platforms among Microarray cores housed at AMDeC-affiliated institutions. For example, AMDeC has negotiated a one-time discount for Iobion Informatics' MULTI software package. This new product stores raw Microarray data files (including numerical and image files), provides built-in data management, and facilitates data validation and analysis. This deal enables AMDeC-affiliated researchers to analyze and share data across institutions, ultimately leading to larger collaborative projects and standardized research protocols.

Another recent agreement, with PerkinElmer Life and Analytical Sciences, will provide affiliated institutions and researchers easier access and better pricing on some of the most critical components needed for microarray-based research. PerkinElmer has agreed to provide a discount to all AMDeC-affiliated institutions on selected fluorescently labeled and biotinylated nucleotides for incorporation into microarray targets. These products are used in the rapid, simultaneous screening of many genes. Additionally, AMDeC is currently establishing a program with BD Biosciences-Clontech covering reagents commonly used in the preparation and running of microarray experiments. The arrangement establishes preferred pricing on seven product categories and over fifty catalog items.

AMDeC will continue this affiliation program through 2003 and hope to complete negotiations with a number of additional vendors within the next quarter. Other planned product offerings include laboratory equipment and instrumentation as well as additional reagents and consumables. For more information, contact George Xixis, Vice President for Business Development at (212) 218-5640 or email xixis@amdec.org.

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## AMDeC TO DEVELOP PLANS FOR SHARED USE MOUSE FACILITY

AMDeC's Executive Committee unanimously approved a resolution at its December meeting for AMDeC to move forward with the development of a shared use mouse facility. There is a strong commitment among many AMDeC-affiliated institutions to look for a collaborative solution to the rapidly approaching and significant shortfall of mouse facility space in New York State. Now that the mouse genome sequence is available for comparison to the human genome, it is anticipated that the need for mouse facility space will rise exponentially.

During an initial exploratory meeting held in November 2002, ten AMDeC-affiliated institutions debated the possibilities and implications of creating a shared use mouse facility. Consensus from the first meeting concluded that at a minimum, a shared mouse facility for breeding would be beneficial to all participating institutions. Now with a mandate from the Executive Committee, AMDeC will proceed with an in-depth planning process to determine feasibility and use. Meetings with key individuals from member organizations have already begun and a questionnaire has been distributed as a first step in the planning process. Opportunities for linkages with biotech companies and biotech space will also be explored. For more information, contact Dr. Laura Philips, Vice President for Program Management at (212) 218-5640 or email philips@amdec.org.

## SAVE THE DATE

**BIOETHICAL ISSUES RAISED BY THE MAPPING OF THE HUMAN GENOME**

**Keynote Speaker**

**The Honorable Sheldon Silver**

Speaker, New York State Assembly

March 19, 2002

Crowne Plaza Hotel

Albany, New York

## DR. LAURA PHILIPS JOINS AMDeC TO HEAD PROGRAM INITIATIVES

In November, Dr. Laura Philips joined AMDeC as Vice President for Program Management. Dr. Philips will oversee AMDeC's large-scale, collaborative science projects and genomics cores at a point where the intersection of these initiatives has become essential. Dr. Philips comes to AMDeC from Corning Incorporated where she held several executive positions in business management, product development, and strategic planning. Prior to Corning, she was in Washington, DC where she served as Senior Policy Advisor to Sec. Ronald Brown in the Department of Commerce, Executive Branch Fellow in the White House Office of Science and Technology Policy, and Technology Advisor to Senator Joe Lieberman. Dr. Philips started her professional career at Cornell University where she was on the Faculty in the Department of Chemistry after completing a post-doctoral fellowship at the University of Chicago. She received her bachelor's degree from Williams College, a PhD in physical chemistry from the University of California, Berkeley, and an MBA from the Johnson Graduate School of Management at Cornell University. Dr. Philips' is newly elected to the American Association for the Advancement of Science's Section on Industrial Science and Technology.